

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
19 February 2004 (19.02.2004)

PCT

(10) International Publication Number  
**WO 2004/014922 A1**

(51) International Patent Classification<sup>7</sup>: **C07D 513/04**,  
A61P 25/28, 35/00, 31/10, A61K 31/428, 31/416

Cambridge Science Park, Milton Road, Cambridge  
CB4 0QA, UK

(21) International Application Number:  
PCT/GB2003/003474

(74) Agents: **HUTCHINS, Michael, Richard** et al.; M.R.  
Hutchins & Co., 33 Connaught Way, Tunbridge Wells,  
Kent TN4 9QP (GB).

(22) International Filing Date: 8 August 2003 (08.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0218625.2 10 August 2002 (10.08.2002) GB  
0312509.3 31 May 2003 (31.05.2003) GB

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,  
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,  
VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): **ASTEX  
TECHNOLOGY LIMITED** [GB/GB]; 436 Cambridge  
Science Park, Milton Road, Cambridge CB4 0QA (GB).

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

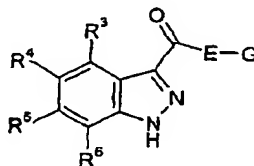
(75) Inventors/Applicants (*for US only*): **BERDINI, Va-  
lerio** [GB/GB]; 436 Cambridge Science Park, Milton  
Road, Cambridge CB4 0QA (GB). **CARR, Maria**  
[GB/GB]; 436 Cambridge Science Park, Milton Road,  
Cambridge CB4 0QA (GB). **SAXTY, Gordon** [GB/GB];  
436 Cambridge Science Park, Milton Road, Cambridge C  
0QA (GB). **WOOLFORD, Alison, Jo-Anne** [GB/GB];  
436 Cambridge Science Park, Milton Road, Cambridge  
CB4 0QA (GB). **WYATT, Paul, Graham** [GB/GB]; 436

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: 3-(CARBONYL) 1H-INDAZOLE COMPOUNDS AS CYCLIN DEPENDENT KINASES (CDK) INHIBITORS



(I)

(57) Abstract: The invention provides a compound of the formula (I); wherein E is O, S, or NH; G is selected from hydrogen; carbocyclic and heterocyclic groups having from 3 to 12 ring members; and acyclic C<sub>1-8</sub> hydrocarbyl groups optionally substituted; provided that E-G is not OH or SH and further provided that E-G does not contain the group O-O; two adjacent moieties selected from R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup>, together with the carbon atoms to which they are attached, form a fused heterocyclic group having from 5 to 7 ring members and 1, 2 or 3 ring heteroatoms selected from N, O and S; and the other two moieties selected from R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are the same or different and are each as defined in the description. The invention also provides compounds of the formula (I) for use as inhibitors of cyclin dependent kinases and for use in the treatment of disease states and conditions mediated by cyclin dependent kinases.

WO 2004/014922 A1